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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,034	03/31/2004	Kyu Jae You	BHT/3162-11	3865

7590 03/04/2009  
BRUCE H. TROXELL  
SUITE 1404  
5205 LEESBURG PIKE  
FALLS CHURCH, VA 22041

EXAMINER
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BOWERS, NATHAN ANDREW

ART UNIT	PAPER NUMBER
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1797

MAIL DATE	DELIVERY MODE
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03/04/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/813,034	<b>Applicant(s)</b> YOU, KYU JAE	
	<b>Examiner</b> NATHAN A. BOWERS	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 December 2008 has been entered.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. The certified copy of Korean application no. 2003-71695 has been received.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1) Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Von Fahnestock (US 5451523) in view of Chen (US 6200475) and Sower (US 20030172697).

With respect to claims 1, 5 and 6, Von Fahnestock discloses a mobile unit for creating fertilizer from organic wastes. The mobile unit consists of a concrete truck whose drum mixer (Figure 1:1) is fashioned as a reactor tank capable of accommodating organic matter. This is disclosed in column 17, line 37 to column 18, line 37. Von Fahnestock, however, states that organic materials enter the mixer via a chain conveyor (Figure 1:5) rather than a conduit regulated by a suction pump.

Sower discloses a system for manufacturing fertilizer. Paragraphs [0118] and [0119] indicate that various pumping devices are used to transport material to and from processing areas. Sower expressly states in paragraph [0119] that pumping means are “within the ordinary skill in the art.” Paragraphs [0157] and [0158] state that a waste slurry (Figure 2:204) is pumped to a reactor (Figure 2:205), and that additional supply devices for additive supply (Figure 2:206-208) are implemented.

Von Fahnestock and Sower are analogous art because they are from the same field of endeavor regarding mobile waste treatment units.

At the time of the invention, it would have been obvious to substitute the conveyor system disclosed by Von Fahnestock with a pumping mechanism capable of

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delivering and removing organic wastes to and from the mixing reactor. Conveyors and pumps are considered to be functionally equivalent devices for transporting materials within a system. If it were determined for any reason that a pumping system would have been advantageous over a conveyor system, it would have been obvious to modify the apparatus of Von Fahnstock accordingly.

At the time of the invention, it would have also been obvious to modify the apparatus of Von Fahnstock in order to include a supply device capable of introducing additives to the reactor. Sower teaches that additives such as precipitating agents, densifiers and flocculants are essential to the degradation of waste materials. Sower also teaches that additives such as acids are effective pH regulating chemicals.

The combination of Von Fahnstock and Sower still differs from the Applicant's claimed invention because neither reference teaches the use of a pipe to introduce a gas.

Chen discloses a device for treating organic waste through treatment using a mixing reactor. Chen teaches that hot fume produced at a burner (Figure 2:21) is moved through a gas pipe (Figure 2:25) to the reactor (Figure 2:1). This is disclosed in column 5, lines 52-58.

Von Fahnstock and Chen are analogous art because they are from the same field of endeavor regarding mobile fertilizer units.

At the time of the invention, it would have been obvious to ensure that the Von Fahnstock apparatus comprises a means for introducing a gas into the reactor interior.

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As evidenced by Chen, the circulation of hot gases through a reactor is known in the organic waste processing art. The construction of a pipe from the exhaust area of the Von Fahnestock truck to the interior of the reactor would require only a minor structural alteration, and would be competed in a highly predictable manner. Exhaust gases represent a viable nutrient source that is attainable at a minimal cost.

With respect to claims 2-4, Von Fahnestock, Sower and Chen disclose the apparatus set forth in claim 1 as set forth in the 35 U.S.C. 103 rejection above. As previously mentioned, Von Fahnestock teaches that the mixing reactor is created from a modified cement mixer. Furthermore, it would have been obvious at the time of the invention to construct the mixing reactor disclosed by Von Fahnestock on the back of a truck or trailer as well. The use of trucks and trailers to haul various mixing reactors is considered to be well known in the art.

### ***Response to Arguments***

Applicant's arguments filed 23 December 2008 with respect to the 35 U.S.C. 103 rejections involving Von Fahnestock, Darling and Lewis have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of the combination of Von Fahnestock, Sower and Chen.

The Sower and Chen references do not suffer from the deficiencies of Darling and Lewis because Sower and Chen each have priority dates that are earlier than Applicant's foreign filing date of 10 May 2003.

As described above, Sower teaches the use of pumping mechanisms to transport organic waste and additives during a process for creating fertilizer. Chen teaches that it is known in the art to introduce hot gases into a mixing reactor using a gas pipe.

### ***Conclusion***

This is a non-final rejection.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan A. Bowers whose telephone number is (571) 272-8613. The examiner can normally be reached on Monday-Friday 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Beisner/  
Primary Examiner, Art Unit 1797

/Nathan A Bowers/  
Examiner, Art Unit 1797